We claim

1. An apparatus for stripping hydrocarbons from fluidized solid particles counter-currently with a gaseous stripping fluid, said apparatus being part of a separator vessel and comprising:
   a) an approximately vertical stripping chamber;
   b) several pairs of segmented, parallel baffles arranged in rows;
   c) a fluid-distributing device for feeding a gaseous stripping fluid;
   d) a grid to collect refractory and coke debris,

   said stripping chamber comprising a zone of downward circulation of the suspended particles counter-currently to said fluid, with the pairs of segmented baffles being oriented so that such rows are offset relative to rows of other levels, where the thickness and separation of said sets of baffles is so dimensioned as to reduce coalescence of the formed bubbles and optimize the hydrocarbons desorption from said fluidized solid particles.
2. An apparatus according to claim 1, further comprising a pipe-grid for feeding the gaseous pre-stripping fluid located in the upper part of the stripper apparatus.
3. An apparatus according to claim 1, wherein the fluid-distributing device is a steam-ring.
4. An apparatus according to claim 1, wherein the fluid-distributing device is a pipe-grid.
5. An apparatus according to claims 3 and 4, wherein the fluid distributed by said device is steam.
6. An apparatus according to claim 1, wherein said vertical stripping chamber comprises basically a set of a series of at least two segmented, baffle plates arranged in sequence.
7. An apparatus according to claim 1, wherein said vertical stripping chamber comprises basically a set of a series of three segmented, baffle plates arranged in sequence.

8. An apparatus according to claim 1, wherein impinging pairs of baffles are oriented so as to be set off relative to the next row of baffles, allowing the gaseous flow to meet an impinging surface able to reduce coalescence of the stripping fluid bubbles.
9. An apparatus according to claim 1, wherein the sets of segmented baffles include of from four to fifteen sets of parallel baffles.
10. An apparatus according to claim 1, wherein the segmented sets of baffles comprise conventional baffles.
11. An apparatus according to claim 1, wherein the segmented sets of baffles comprise baffles of the disc and donut type.
12. An apparatus according to claim 1, wherein the segmented sets of baffles comprise baffles of any geometry.
13. An apparatus according to claim 1, wherein any upper disc is supported by the next lower disc, said disc being in turn supported by the upper donut, and successively.
14. An apparatus according to claim 1, wherein the first pairs of discs and donuts are refracted.
15. An apparatus according to claim 1, wherein the cross-sectional free area is of from 20% to 80% of the total area, with the free area of the rips being of from 5% to 20% of the cross sectional area.
16. An apparatus according to claim 15, wherein the free area of the rips is of from 8% to 12% of the cross sectional area.
17. An apparatus according to claim 1, wherein the rip width in the first baffle of the at least two baffles of each set is of from 0.012Φ to 0.18 Φ.
18. An apparatus according to claim 17, wherein the rip width in the first baffle of the at least two baffles of each set is of from 0.018Φ to 0.12Φ.
19. An apparatus according to claim 1, wherein the rip width of the second baffle of the at least two baffles of each set is of from 0.024Φ to 1.62Φ.
20. An apparatus according to claim 19, wherein the rip width of the second baffle of the at least two baffles of each set is of from 0.074Φ to 0.36Φ.

21. An apparatus according to claim 1, wherein the baffles are parallel to the horizontal.
22. An apparatus according to claim 1, wherein the baffles are slant baffles, with a slope to the horizontal of from 20° to 40°.
23. An apparatus according to claim 1, wherein the angle between the chamber walls and the impinging baffle/donut is of from 30° to 60°.
24. An apparatus according to claim 23, wherein the angle between the chamber walls and the impinging baffle/donut is 45°.
25. An apparatus according to claim 1, wherein a set of segmented baffles containing of from 2 to 6 baffles, is alternated with a set of at least two segmented discs.
26. An apparatus according to claim 1, wherein said wall baffles are separated by a distance of from 0.012Φ to 0.54Φ.
27. An apparatus according to claim 26, wherein said distance is of from 0.036Φ to 0.12Φ.
28. An apparatus according to claim 1, wherein the rips of the first disc of the at least two discs of the set are of from 0.003Φ to 0.080Φ.
29. An apparatus according to claim 28, wherein the rips of the first of the at least two discs of the set are of from 0.008Φ to 0.032Φ.
30. An apparatus according to claim 1, wherein the rips of the second of the at least two discs of the set are of from 0.006Φ to 0.72Φ.
31. An apparatus according to claim 30, wherein the rips of the second of the at least two discs are of from 0.008Φ to 0.096Φ.
32. An apparatus according to claim 1, wherein the distance between discs is of from 0.003Φ to 0.24Φ.
33. An apparatus according to claim 32, wherein the distance between discs is of from 0.008Φ to 0.24Φ.
34. An apparatus according to claim 33, wherein the distance between discs is of from 0.008Φ to 0.032Φ.

35. An apparatus according to claims 1 to 34, wherein said apparatus is directed to a gas-solid separation process.

36. An apparatus according to claim 35, wherein the gas-solid separation process is part of a fluid catalytic cracking process.

37. A process for stripping hydrocarbons from fluidized solid particles in a stripping zone associated with a fluid catalytic cracking reactor wherein said stripping zone removes hydrocarbons from a continuously circulating stream of fluidized particulate catalyst by contact with a stripping gas, said process comprising:

a) contacting a particulate catalyst with hydrocarbons;

b) disengaging hydrocarbon vapors from said catalyst particles to yield catalyst particles having adsorbed hydrocarbons thereon;

c) passing said catalyst particles having adsorbed hydrocarbons downwardly through a vertical stripping chamber past a series of sets of at least two parallel, segmented, baffle plates each, with the segments being oriented so that the rows are offset relative to rows of the next level, where the thickness and separation of said sets of baffles is so dimensioned as to reduce coalescence of the formed bubbles and optimize hydrocarbons desorption from the catalyst, by virtue of the parallel segmentation the catalyst flowing homogeneously vertically as well as horizontally so as to prevent stagnation zones;

d) withdrawing stripped catalyst particles form the bottom of said stripping zone;

e) distributing stripping fluid along the stripper apparatus comprising said segmented sets of baffles while reducing coalescence of bubbles; and

f) withdrawing stripping fluid and recovered hydrocarbons from the top of said stripping zone.

38. A process according to claim 37, wherein the particulate catalyst is any porous solid catalyst.

39. A process according to claim 37, wherein the particulate catalyst is a zeolite-containing FCC catalyst.